

WHAT IS CLAIMED IS:

1. A method for detecting an anomaly, said method comprising:

performing a computed tomography (CT) scout scan to obtain data;

and

supplying the obtained data to a radiographic computer aided detection (CAD) algorithm.
2. A method in accordance with Claim 1 further comprising:

displaying results from the CAD algorithm to a user; and

displaying a CT scout image generated from the obtained data to the user.
3. A method in accordance with Claim 1 further comprising:

determining a confidence level of the CAD algorithm;

comparing the determined confidence level to a threshold; and

performing a second CT scout scan when the determined confidence level is less than the threshold.
4. A method in accordance with Claim 1 further comprising:

determining a confidence level of the CAD algorithm;

comparing the determined confidence level to a threshold;

performing a volumetric CT scan when the determined confidence level is less than the threshold;

generating at least one Digitally Reconstructed Radiograph (DRR) from the volumetric CT scan; and

supplying the DRR to the radiographic CAD algorithm.

5. A method in accordance with Claim 1 further comprising:

determining a confidence level of the CAD algorithm;

comparing the determined confidence level to a threshold;

performing a volumetric CT scan when the determined confidence level is less than the threshold;

generating at least one Digitally Reconstructed Radiograph (DRR) from the volumetric CT scan; and

displaying the DRR.

6. A method in accordance with Claim 4 further comprising

acquiring an x-ray projection image; and

mapping the DRR and results from the radiographic CAD algorithm onto an x-ray projection space.

7. A method for detecting an anomaly, said method comprising:

performing a computed tomography (CT) volumetric scan to acquire CT data;

generating at least one Digitally Reconstructed Radiograph (DRR) from the acquired CT data; and

providing the DRR to a radiographic computer aided detection (CAD) algorithm.

8. A method in accordance with Claim 7 further comprising:

acquiring an x-ray projection image; and

mapping the DRR and results from the radiographic CAD algorithm onto an x-ray projection space.

9. A method in accordance with Claim 7 further comprising displaying results from the radiographic CAD algorithm with a corresponding CT slice.

10. A method in accordance with Claim 7 further comprising:

determining a confidence level of the CAD algorithm;

comparing the determined confidence level to a threshold;

performing a second volumetric CT scan when the determined confidence level is less than the threshold;

generating at least one Digitally Reconstructed Radiograph (DRR) from the second volumetric CT scan; and

providing the DRR from the second volumetric CT scan to the radiographic CAD algorithm.

11. A method in accordance with Claim 10 further comprising:

acquiring an x-ray projection image; and

map the DRR from the second volumetric CT scan and results from the radiographic CAD algorithm regarding the DRR from the second volumetric CT scan onto an x-ray projection space.

12. A Computed Tomography system comprising:

an x-ray source;

an x-ray detector; and

a computer operationally coupled to said x-ray source and said detector, said computer configured to execute a radiographic Computer Aided Detection (CAD) algorithm on data derived from a first CT scan of an object.

13. A system in accordance with Claim 12, wherein to execute a radiographic CAD algorithm said computer further configured to:

generate at least one Digitally Reconstructed Radiograph (DRR) from CT data; and

execute the radiographic CAD algorithm on the generated DRR.

14. A system in accordance with Claim 12, wherein to execute a radiographic CAD algorithm said computer further configured to:

perform a scout scan of the object using said source and detector to generate CT scout scan data; and

execute the radiographic CAD algorithm on the generated CT scout scan data.

15. A system in accordance with Claim 12, wherein said computer further configured to:

compare a confidence level of the radiographic CAD algorithm with a predetermined threshold; and

perform a second CT scan of the object when the confidence level is below the predetermined threshold.

16. A system in accordance with Claim 12, wherein to execute a radiographic CAD algorithm, said computer further configured to:

perform a volumetric CT scan of the object to generate volumetric CT data;

generate a plurality of Digitally Reconstructed Radiographs (DRR) each in a different orientation;

execute the radiographic CAD on each DRR to obtain results;

map the obtained results on the volumetric CT data; and

display the volumetric CT data including the mapped results.

17. A system in accordance with Claim 15, wherein to perform a second CT scan said computer further configured to:

perform a volumetric CT scan of the object to generate volumetric CT data;

generate a plurality of Digitally Reconstructed Radiographs (DRR) each in a different orientation;

execute the radiographic CAD on each DRR to obtain results;

map the obtained results on the volumetric CT data; and

display the volumetric CT data including the mapped results.

18. A system in accordance with Claim 17, wherein to execute a radiographic Computer Aided Detection (CAD) algorithm, said computer configured to execute a radiographic Computer Aided Detection (CAD) algorithm on data derived from a first CT scan of an object, wherein the first CT scan comprises a CT scout scan.

19. A system in accordance with Claim 17, wherein to execute a radiographic Computer Aided Detection (CAD) algorithm, said computer configured to execute a radiographic Computer Aided Detection (CAD) algorithm on data derived from a first CT scan of an object, wherein the first CT scan comprises a CT volumetric scan.

20. A computer readable medium encoded with a program configured to instruct a computer to execute a radiographic Computer Aided Detection (CAD) algorithm on data derived from a CT scan of an object.

21. A method of displaying data, said method comprising:

obtaining an x-ray projection image;

supplying the obtained x-ray projection image to a computer aided detection (CAD) algorithm; and

displaying results of the CAD algorithm on at least one of a Computed Tomography (CT) scout image and a Digitally Reconstructed Radiograph (DRR).

22. A method in accordance with Claim 21 further comprising:

supplying the CT scout image to the computer aided detection (CAD) algorithm;

registering results from the CAD algorithm regarding the CT scout image with results from the CAD algorithm regarding the x-ray projection image; and

displaying the registered results regarding both the CT scout image and the x-ray projection image in a combined display.

23. A method in accordance with Claim 22 wherein said displaying comprises displaying the registered results regarding both the CT scout image and the x-ray projection image in a combined display such that a user can differentiate the results from the results from the CAD algorithm regarding the CT scout image from the results from the CAD algorithm regarding the x-ray projection image.

24. A method for detecting an anomaly, said method comprising:

performing a volumetric CT scan of an object;

generating at least one digitally reconstructed radiograph (DRR) from the volumetric CT scan; and

supplying the DRR to a radiographic computer aided detection (CAD) algorithm.

25. A method for detecting an anomaly, said method comprising:

performing a volumetric CT scan of an object to obtain CT data;

registering results from a CAD algorithm regarding x-ray projection data of the object with the obtained CT data; and

displaying the registered x-ray projection data with the CT data.

26. A method for detecting an anomaly, said method comprising:

obtaining an x-ray projection of an object;

registering results from a CAD algorithm regarding CT data of the object with the obtained x-ray projection; and

displaying the registered CT data with the x-ray projection.

27. A method for detecting an anomaly, said method comprising:

performing a volumetric CT scan of an object to obtain CT data;

obtaining an x-ray projection of the object;

supplying the CT data to a CAD algorithm to obtain CT CAD results;

supplying the x-ray projection to a CAD algorithm to obtain x-ray CAD results; and

displaying the CT CAD results with the x-ray CAD results in a combined display.

28. A method in accordance with Claim 27 wherein said displaying comprises displaying the CT CAD results with the x-ray CAD results in a combined display such that a user can differentiate the CT CAD results from the x-ray CAD results.

29. A method in accordance with Claim 27 wherein supplying the CT data to a CAD algorithm to obtain CT CAD results comprises:

generating at least one digitally reconstructed radiograph (DRR) from the volumetric CT scan; and

supplying the DRR to a radiographic computer aided detection (CAD) algorithm to obtain CT CAD results.

30. A computer readable medium embedded with a program configured to instruct a computer to:

receive CT data regarding a volumetric CT scan of an object;

receive an x-ray projection of the object;

perform a CAD analysis of the received CT data to generate CT CAD results;

perform a CAD analysis of the received x-ray projection to generate x-ray CAD results; and

combine the CT CAD results with the x-ray CAD results.